Commodity Highlight: Pinto Beans

In the United States, dry edible beans are produced in 40 States by 8,647 farms (2002 Census of Agriculture). Pinto beans are the leading class of dry edible beans produced in the United States. The United States is also a quality producer of dozens of other bean types such as navy (pea bean), Great Northern, black, kidney, small red, and lima beans. During the 3-year period 2002-04, pinto beans accounted for nearly 45 percent of total U.S. dry bean production. The next largest class of bean, navy, accounted for just 14 percent of total output.

During 2002-04, the United States ranked sixth in world dry round bean production. The round types include classes such as pinto, navy, and kidneys but exclude broad, flat types commonly grown in countries such as China. The United States produced about 6 percent of world dry bean output behind Brazil (16 percent), India (15 percent), China (11 percent), Burma (9 percent), and Mexico (8 percent).

Pinto beans are a type of dry edible bean of the species *Phaseolus vulgaris* (common bean). Domesticated over 7,000 years ago in both Peru (large seed races) and southern Mexico (small seed races), common beans have spread all over the world since European explorers first visited the Americas. 2/ In the United States, pinto beans are usually grown in rotation with such crops as corn, wheat, barley, hay, sugar beets, or potatoes.

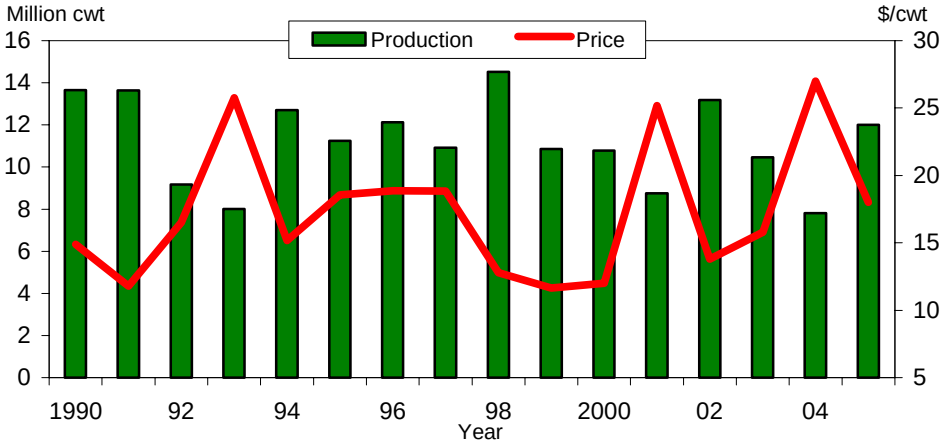
2/ From Yamaguchi, Mas. "World Vegetables: Principles, Production, and Nutritive Values", 1983.

A warm-season crop, pinto beans grow best in temperate climates such as that found during the summer months across the northern half of the United States. As a legume, pinto beans can supply a portion of their own nitrogen needs by hosting a common soil bacterium (*Rhizobium*) in their root system, which then forms nodules and fixes nitrogen from the air.

Pinto beans are used to produce canned refried beans, with 71 percent of these consumed away from home. They are also used (whole or mashed) in many food dishes such as three-bean salads, various "Tex-Mex" and Mexican dishes (e.g. burritos and tacos), soups (such as minestrone), stews, rice dishes, casseroles, and even some desserts (cakes and pies).

Figure 18

U.S. pinto beans: Production and season-average grower price 1/



1/ One cwt (hundredweight) = 100 pounds. Prices in North Dakota/Minnesota.
Source: NASS, USDA and Market News, AMS, USDA except 2005 forecast by ERS.

Table 14--U.S. pinto beans: Production in selected States

Item	2000	2001	2002	2003	2004	Change 2003-04
			----- 1,000 cwt -----			Percent
North Dakota	5,294	4,050	7,184	5,864	3,561	-39
Nebraska	749	1,050	1,709	1,019	1,196	17
Colorado	1,675	1,530	1,282	1,031	895	-13
Idaho	641	521	833	649	593	-9
Wyoming	542	440	544	526	479	-9
Montana	331	200	290	209	252	21
Minnesota	494	156	322	329	160	-51
Kansas	279	263	256	231	153	-34
Washington	242	94	295	161	153	-5
Michigan	290	23	183	150	111	-26
Others 1/	241	423	290	284	261	-8
United States	10,778	8,750	13,188	10,453	7,814	-25

1/ Includes California, New Mexico, Oregon, South Dakota, Texas, and Utah.

Source: National Agricultural Statistics Service, USDA.

Dry beans, such as pintos, have not been included in price support programs since the late 1960s. However, USDA buys various dry-bagged and canned beans for use in child nutrition and other national and international feeding programs each year.

Some basic statistics on the U.S. pinto bean market on an average annual basis for 2002-04 were as follows:

- Pinto beans were harvested from 651,700 acres;
- Pinto bean yield was about 1,591 pounds per acre;
- Estimated pinto bean farm value was $192 million;
- Domestic use of pintos was about 872 million pounds;
- Pinto per capita use appears to have slowed to about 3.0 pounds compared with 3.4 pounds during the 1990s;
- Supermarket sales of dried and canned pinto products total over $265 million;
- The U.S. continued to be a net exporter of pinto beans. In 2003/04 exports were 200 million pounds (valued at $44 million).

North Dakota is the Top Producer

Pinto beans are grown commercially in 16 States. North Dakota is the leading producer of pintos, with 53 percent of the national crop during 2002-04. The other top States during that period included Nebraska (12 percent) and Colorado (10 percent). North Dakota emerged as the leading producer of dry edible beans in the early 1990s, with about 32 percent of the Nation's crop during 1992-94.

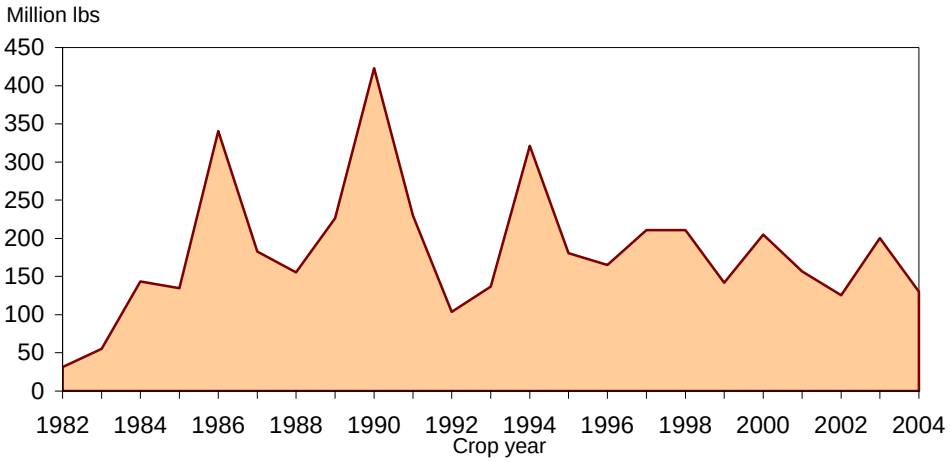
According to the 2002 Census of Agriculture, 1,999 farms produced dry edible beans in North Dakota--down 4 percent from 1997. Dry bean production in North Dakota is primarily concentrated among two types--pinto beans, which accounted for 72 percent of the State's dry bean output during 2002-04 and navy beans at 18 percent. Lightly irrigated, most production takes place in the fertile Red River Valley with Grand Forks (15 percent), Walsh (15 percent), Wells (10 percent), and Pembina (10 percent) Counties the top producers in 2004.

Trade is Important for Pintos

The pinto bean market has long been characterized as a mature, slow-growth market punctuated by export-oriented surges. Pinto grower and bean dealer prices have

Figure 19

U.S. pinto beans: Crop year export volume



Source: Bureau of the Census, USDC except 2004 forecast by ERS.

Table 15--U.S. pinto beans: Crop year exports to selected countries

Item	Crop year				
	2000	2001	2002	2003	2004 f
	----- 1,000 cwt -----				
Haiti	417	306	328	431	250
Mexico	839	365	299	152	190
Dominican Republic	135	274	87	393	100
Angola	209	224	91	29	60
Moldova	0	0	0	48	40
Zaire	11	0	0	29	35
Kenya	33	15	2	20	30
Guatemala	70	38	15	11	25
Zambia	0	0	105	32	20
Rwanda	37	22	47	14	20
Netherlands	0	3	45	3	12
Cuba	0	0	44	133	0
Others 1/	299	322	191	705	218
World	2,051	1,570	1,255	2,002	1,000

f = projected by ERS.

Source: Bureau of the Census, USDC.

seen several peaks associated with either strong export activity or a short crop over time. Pintos have long been an important domestic and international food aid crop and are frequently purchased under Federal food aid programs such as PL-480.

The United States exported 11 percent of its pinto bean supplies during 2002-04, up from 10 percent in 1992-94 but down from 13 percent in 1982-84. During crop years 2001/02 to 2003/04, pinto bean exports averaged about $40 million annually, on volume of 161 million pounds. During this 3-year period, the top foreign destinations for U.S. pinto beans included Haiti (22 percent of volume), Mexico (17 percent), and the Dominican Republic (16 percent). An increasingly important destination has been Cuba (4 percent of volume), with exports rising over each of the past three seasons.

Pinto bean imports continue to be a relatively minor source of supply. Only 2 percent of the pinto beans consumed in the United States come from imports (up

from 1 percent in 1992-94), with most arriving from Canada. During crop years 2001/02 to 2003/04, imports averaged about $4 million annually on volume of 22 million pounds.

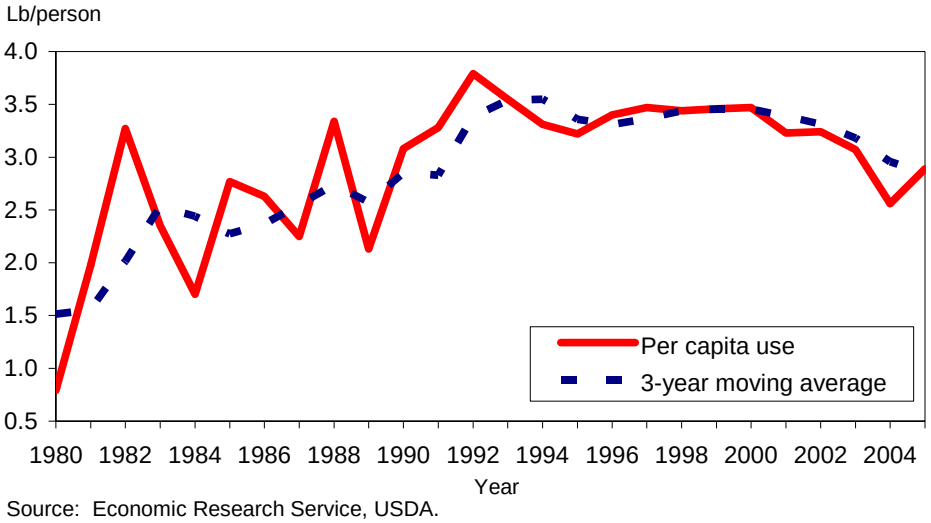
Pintos Are Nutritious but Disappearance May Be Slowing

Pintos, like all dry beans, are very nutritious. Relatively inexpensive, dry beans are an excellent source of vitamins, minerals, soluble dietary fiber, and protein. The leading source of vegetable protein, dry edible beans are among the best food buys in terms of cost per gram of protein. Dry edible beans contain no cholesterol, and research suggests that with regular consumption, the soluble fiber in dry beans like pintos can reduce blood cholesterol levels. A serving of dry beans is also rich in B-vitamins, iron, calcium, potassium, phosphorous, and is very low in sodium and calories.

Per capita disappearance of pinto beans appears to have lost some of the momentum built during the late 1980s and 1990s. During the 1980s, per capita use increased 14 percent to 2.3 pounds after averaging about 2.0 pounds during the 1960s and 1970s. An increase in Hispanic immigration was undoubtedly an important explanatory factor in rising pinto bean consumption during the 1980s. According to a USDA food consumption survey, most U.S. pinto beans are consumed in the West and South, the 2 regions where the majority of Hispanics live.

Continued Hispanic immigration in the 1990s was joined by a widespread surge of interest in ethnic cuisines (e.g., Mexican and Tex/Mex) which boosted pinto bean consumption 46 percent during the decade. However, as the new millennium dawned, per capita use of pinto beans began to soften with growing awareness in other ethnic cuisines (e.g., Chinese and Thai) seemingly supplanting some of the interest in Tex/Mex and Mexican foods. As a result, per capita use of pinto beans has declined about 8 percent to 3.1 pounds during the first 5 years of the 2000s. It is uncertain as to where pinto bean demand may go in the next 5 years. However, the increasing interest in vegetarian diets, veganism, and plant-based foods in general, may hold some promise for pinto bean products over the next few years, especially those which also embody convenience in preparation.

Figure 20
U.S. pinto beans: Calendar year per capita disappearance



Source: Economic Research Service, USDA.

For more information on pinto beans and other dry edible beans, see:

http://www.ers.usda.gov/briefing/drybeans/

http://usda.mannlib.cornell.edu/data-sets/specialty/86003/

http://www.ers.usda.gov/Publications/vgs/